

REMARKS

CLAIM STATUS

Claim 33 has been amended herein to recite "closing the toroidal support and the tyre being processed therewith into a hermetically sealed cavity without a vulcanization mould." Applicants have also added new claim 65, which mirrors prior claim 33 with the addition of:

deactivating the supply of heat to the tyre while the toroidal support and tyre remain closed in the sealed cavity and then extracting said toroidal support and said tyre being processed from said cavity; [and]

completing building of the tyre while the toroidal support continues to transfer heat to the radially innermost layers of the tyre, despite having deactivated the supply of heat;

Section 112 support for these amendments can be found in the specification-as-filed at least, for example, within Figure 1 (showing cavity without a vulcanization mould) and page 16, line 1 to page 17, line 5. Thus, no new matter has been added. Further, claim 36 has been withdrawn in view of the April 27, 2010, species election. Accordingly, claims 33-35, 37-40, and 65 are pending for examination on their merits.

PRIOR ART REJECTIONS

The Office rejects claims 33, 34, and 37 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Caretta (U.S. Publication No. 2002/0125615) in view of Blickwedel et al. (WO 00/03867) and Midgley et al. (U.S. Patent No. 1,294,928) for the reasons provided on pages 2 to 4 of the Final Office Action; claim 35 as allegedly being unpatentable over Caretta in view of Blickwedel et al. and Midgley et al. further in view

of Brewer (U.S. Patent No. 4,620,561) for the reasons provide on pages 4 to 5 of the Final Office Action; and claims 37 to 40 as allegedly being unpatentable over Caretta in view of Blickwedel et al. and Midgley et al. further in view of Oku (U.S. Publication No. 2002/0121324) or Daillez (U.S. Patent No. 5,622,669) for the reasons provided on pages 5 to 7 of the Final Office Action.

Regarding the primary obviousness rejection of independent claim 33, the Office admits that Caretta fails to disclose “precuring both a liner and a carcass portion of the tire in a hermetically sealed chamber prior to the tire vulcanization/ completion step.” Final Office Action, page 3. More clearly, the Office admits that Caretta does not teach:

- closing the toroidal support and the tyre being processed therewith into a hermetically sealed cavity;
- admitting a working fluid into said cavity to press the inner surface of said tyre being processed against the outer surface of said toroidal support;
- supplying heat to said tyre being processed to start vulcanisation of at least one elastomer element of the carcass structure selected from said elastomer filler and said radially internal layer;
- extracting said toroidal support and said tyre being processed from said cavity; or
- completing building of the tyre being processed.

However, the Office contends that Blickwedel et al. discloses “a precure operation on the carcass layer in addition to a liner layer (Column 6, lines 67) . . .” and that Midgley et al. discloses “that a fluid pressure pressing the carcass against the rigid

support can be supplied through a hermetically sealed container.” Office Action, pages 4-5. The Office contends that “one of ordinary skill in the art at the time of the invention would have found it obvious to perform the carcass and liner pre-curing on the heated support required by the previous combination in a hermetically sealed pressure vessel because this is functionally equivalent to curing in an open air environment (as disclosed by Midgley).” Office Action, pages 5-6.

While Applicants disagree with the Office for the reasons already of record, in order to advance prosecution on the merits, Applicants have amended claim 33 to recite “closing the toroidal support and the tyre being processed therewith into a hermetically sealed cavity without a vulcanization mould.” As detailed in the specification-as-filed, Applicants discovered that the process of manufacturing tyres is significantly improved if there is a pre-vulcanization step followed by a vulcanization/moulding step. Hence, the amendment to claim 33 makes explicit that which had been inherent: there is no mould present in the cavity when enclosing the toroidal support and tyre in the sealed cavity, when admitting working fluid into the sealed cavity, and when supplying heat to the tyre in the sealed cavity.

The Office relies upon Midgley et al. to teach pre-curing under the recited conditions. Final Office Action at 3-4. Yet, Midgley et al. does not teach or suggest either “closing the toroidal support and the tyre...into a hermetically sealed cavity without a vulcanization mould,” for performing the claimed working fluid pressure and heating steps within the hermetically sealed cavity, or transferring the tyre to a separate vulcanization mould for further processing. In fact, Midgley et al. only discloses

performing pre-curing, **“while the casing and core are inclosed in the usual compression molds.”** Page 2, lines 22-25.

Accordingly, whether or not there is a basis to combine the teachings as suggested (and Applicants do not agree there is), the combination of teachings does not result in a method comprising “closing the toroidal support and the tyre being processed therewith into a hermetically sealed cavity without a vulcanization mould.” Hence, the rejection of claims 33-35 and 37-40 should be withdrawn.

Furthermore, Applicants have added new claim 65, which requires

deactivating the supply of heat to the tyre while the toroidal support and tyre remain closed in the sealed cavity and then extracting said toroidal support and said tyre being processed from said cavity; [and]

completing building of the tyre while the toroidal support continues to transfer heat to the radially innermost layers of the tyre, despite having deactivated the supply of heat;

However, nothing in Midgely et al. (the only reference alleged to disclose a sealed cavity for procuring) suggests deactivating the supply of heat while the cavity was sealed. Further, nothing in Blickwedel et al. or Midgely et al. teaches or suggests continued heating by the toroidal support after being removed from the sealed cavity.

Accordingly, the rejection of claims 33-35 and 37-40 are inapplicable to new claim 65 and new claim 65 should be allowed.

CONCLUSION

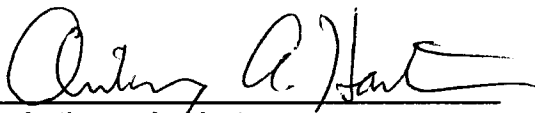
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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